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NUMBERS IN HISTORY

HOW THE GREEKS DEFEATED THE PERSIANS
THE ROMANS CONQUERED THE WORLD
THE TEUTONS OVERTHREW THE ROMAN EMPIRE
AND

WILLIAM THE NORMAN TOOK POSSESSION OF ENGLAND

Two Lectures delivered before the University of London on October 6 and 7, 1913

ВV

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NUMBERS IN HISTORY

HISTORIANS of our day are supposed to study one period or the other of the history of mankind, because nobody, not even the greatest scholar, would be able to master history on the whole. But it is not sufficient to divide the researches by periods of time, because periods are not to be understood by themselves only, but must be always illustrated by the preceding and following times, and even by times very far apart, throwing their light by analogies. To profit by this kind of elucidation, we are forced to divide the work of historical research not only in breadth, but also in length. We must have historians not only of the Greeks, the Romans, or the Middle Ages, but also specialists for Constitutional History, or Economic History, or History of Literature, History of Art, or whatever branches may be

chosen. On this basis, for forty years, I have studied the History of the Art of War. I began this study when I came back, as a student, from the Franco-German War.

The first object I turned to was the comparison between the strategy of Napoleon and Frederick the Great, in which I hold views opposed to those entertained by the officers of the general staff of the Prussian army. Even to this day the controversy which arose here has not been settled. I had come to this question in the theoretical history of strategy, working on the life of General Gneisenau, the chief of Field-Marshal Blücher's staff, the man who gave to the Field-Marshal the opportunity of making the joke, that he, the Field-Marshal, was the only man who could kiss his own head. From these studies in modern wars I turned to older times, and wrote a little book, Die Perserkriege und die Burgunderkriege, in which I compared the war of the Persian kings against the Greeks with the war of Charles the Bold, Duke of Burgundy, against the Swiss. I shall say at once in what sense this comparison is meant. At last I published up to date three volumes under the title (History of the Art of War), Geschichte der Kriegskunst im Rahmen der politischen Geschichte, beginning with the Battle of Marathon and reaching to the end of the Middle Ages. The fourth volume, which I have now in hand, is a very difficult piece of work, as the subject and its field are extending more and more. Some of the results of this work I now intend to present to you.

One of the first observations which I made, comparing the phenomena of history of war in different ages, was, as I already said, the similarity between the battles in which the Swiss conquered Duke Charles the Bold and the battles in which the Greeks overcame the Persians. The Swiss army was composed of men armed with pikes and halberds, supported by a few archers and a few horsemen. The army of the Duke was composed of horsemen and archers; the newly-invented fire-arm was not of any significance. Likewise the Greek armies were made up of men with pikes, with but few archers and perhaps no horsemen, while the Persians were an army of horsemen and archers.

Again and again Æschylus sings in his tragedy, The Persians, of the victory of the pike over the arrow. The Milesian 'Aristogarus comes to Sparta and tells the people that the Persians go to war, not clad in iron, as the Greeks used to be, but in "hats and trousers"; that is to say, they were distant and not hand-to-hand fighters, as the Greeks. So we have, in an interval of two thousand years, exactly the same arms and the same political institutions fighting each other. On the one side a great war lord with his knights and bowmen, on the other citizens and peasants, republicans, with arms for handto-hand fighting, and in both cases the latter had the victory over the former. If so, it seemed to me evident that from the course of the battles of Granson, Murten, and Nancy, where the Swiss smote the Burgundians, an historian might draw conclusions regarding the course of the battles of Marathon and Plataeæ. Our historical knowledge of these battles is extensive enough, but of very little trustworthiness. Father Herodotus, almost our only source for the Persian War, wrote down his tale

forty or fifty years after the events, and then only what the people told him; assuredly what people tell each other a generation after will very often be not history, but only legend. And we have not even the control of a second Greek historian, to say nothing of what would be much more important, a tale from the other side, from a Persian. Can we believe in such a tradition at all? The historian Niebuhr once in a pessimistic vein remarked that there had been a war between Greeks and Persians, and that the Greeks had been victorious there could be no doubt; but this, too, was really all that we could with certainty say about these most celebrated incidents in the world's history.

If we really had no other source than the tale of Herodotus, the tragedy of Æschylus, and here and there a slight reference in another Greek author, I should indeed feel obliged to agree with Niebuhr, to confess that we know little or nothing about this first period of classic history. But there do exist resources, to which we may turn for aid. First there are modern geography and maps;

these give us the most exact pictures of the countries in which the struggles took place; and then there are the laws of tactics, which can be determined for every sort of arms. Now the tale of Herodotus, even if we are sceptical to the highest degree, shows us with certainty the battle-fields. It is quite clear from the detail which he gives that he himself visited these places. regard to the tactics, we know already the kind of arms used in these battles; and the battles of the Swiss-Burgundian War show us, in the full light of history, the relative virtues of the different weapons one to another. More than that, there does exist a tale of the Swiss battles by Bullinger, that, like the tale of Herodotus, is taken from the mouth of the people a generation after. But while we have nothing about the Greek War but this tale, we have contemporary tales and letters concerning the Burgundian War, which not only give us control of Bullinger's tale, but show also how the real facts in the mouth of the people are gradually changed. Learning to distinguish in Bullinger between legend and history, our eye is sharpened to make the same distinctions in the tale of Herodotus.

For this reason it was that in an appendix to my above-mentioned book, I gave the tale of Bullinger in print. The Swiss themselves had not yet done it, because this tale seemed worthless compared with the older and better ones.

Now the first point to which in any history of war we have to direct our attention is the number of the warriors. It is impossible to form a judgment about any act of fighting if you do not picture to yourself the size of the armies. A movement that a thousand men would make forthwith is for twenty thousand already a strategic movement; for 100,000 a masterpiece, for 300,000 an impossibility. Just so with the provisioning of an army, and provisioning is the half of conducting a campaign. But as important as the numbers are in war and in the decision of war, just as difficult is the determination of these numbers for the historian.

The best strategy is, as the great philosopher of war, Carl v. Clausewitz, has said, always to be very strong, first on the whole,

and then at the decisive point. That appears to be very simple and a mere matter of course; it is, however, in no way the guiding idea for the manner in which the people conceive and hand down their military exploits. On the contrary, nothing gives more pleasure to the soul of the people, and nothing is related by the narrator more willingly, than that a small host has conquered a greater. Shake-speare makes King Henry V say before the Battle of Agincourt—

If we are marked to die, we are enow To do our country loss; and if to live The fewer men the greater share of honour.

It is not going too far if a direct antithesis is here stated. The organizer of the army as well as the commander-in-chief direct their whole power and attention to attack the enemy with the greatest possible superior strength. By the people, however, the merit in this is never seen. They glorify the fact that it has been the minority which has conquered the majority. Thus the few Greeks have conquered the innumerable masses of the Persians; the Swiss peasants,

few in numbers, the hosts of the Habsburg and Burgundian Dukes; and how the eyes of the Prussian youth shine when he reads that Frederick the Great, with 30,000 men, the Potsdamer Guard, has fallen on the flank of the supposed 90,000 Austrians at Leuthen! The French like to dwell on nothing better in the history of 1870 than the account of how they fought in the battle of Wörth, hour after hour, against the everincreasing superior strength of the Germans, and finally succumbed only when it had grown to thrice their number. The Germans, again, extol Vionville, where two of our army corps offered an unconquerable opposition to the doubly superior force of Bazaine. But might there not be within it an unconscious, indirect criticism of the chief command of the German army, which exposed two isolated army corps to a struggle with the main body of the French army, whilst eight other corps stood in the background, but so far away that they were unable to interfere? In the same way the inferiority of MacMahon at Wörth throws the final blame upon the French Government and the French nation. who, although equal then in numbers to the Germans, had placed in comparison so few of their sons for the defence of the country.

In these examples we have contemplated an antithesis, deeply rooted in the human mind, which pervades, governs, and renders difficult the transmission of the history of war. The greatest of all warlike virtues is bravery, and bravery in a struggle of the minority against a majority, or indeed in a conquest of the majority by the minority, appears most marked and unquestionable. For this reason the most unreliable and incredible of all the many inaccuracies handed down to us in the chronicles is the number of the armies. Without approximately accurate numbers an exact knowledge and a true understanding of martial proceedings are absolutely impossible. That is obvious. How, however, is one to obtain accurate numbers, when only incorrect ones have been handed down to us? The task seems to be almost a hopeless one, for it is not only the patriotic legends which create the incorrect numbers; but the generals themselves, who have given full particulars concerning their

deeds, are only too much inclined to increase their fame by the help of inaccurate numerical returns. Napoleon claims in his first campaign, 1796, to have conquered 80,000 Austrians and Sardinians with 30,000 men; but in truth he was only a little weaker than his opponent, some 40,000 against 47,000 men. Even Frederick the Great, whose memorable deeds are distinguished in his *Memoirs* by truthfulness, cannot help altering the numbers in the battles of his wars, also in the list of losses, very often much in his favour; and even where that tendency is lacking, and the historians have attempted by calculations to determine the numbers, it is also often not easy in the most recent wars to arrive at sure conclusions. Only in the last twenty years have we ascertained how strong Napoleon was at Jena and how strong the allies were in the battle of Leipzig. these new investigations we can not only draw upon the very numerous individual statements of contemporaries and fellowcombatants, which check each other mutually, but we can also especially make use of the archival documents, reports of army

strength and official lists of casualties. In spite of that the work was difficult. How may it, then, be possible to maintain something in some degree reliable concerning the Middle Ages, or Antiquity, where often only a single statement is at our command, whose origin is unreliable, and where nothing from the enemy's camp can confront it as a check? Ought we to believe what Cæsar informs us of concerning the gigantic armies of the Gauls, whose conquest is his glory, since we have now seen that neither Napoleon nor Frederick in this respect is to be trusted? Before Hannibal left Italy he had had engraved on the wall of a Greek temple how strong the army was with which he had so often conquered the Romans and terrified Italy. The Greek Polybius read this inscription himself and quoted its contents in his work. What better source can there be? But is the statement of Hannibal really reliable? Sometimes we have, though indeed seldom enough, numbers which are subjectively beyond every doubt, like the statements of Thucydides concerning the number of the armed citizens of Athens, or the official

numbers of the Roman Census, which Livy and other writers have preserved for us. Unfortunately, however, the interpretation of what the numbers really meant and to what they referred is not absolutely to be determined, and scholars have consequently drawn from them conclusions which show a difference of twice as much again, and more.

Shall scientific study, however, really end in such complete scepticism? The numbers, not only of armies but also of population, are of the greatest importance for all historical life and development—if we must confess concerning the numbers that we do not know them, what can we then say in general concerning the historical phenomena?

The same means by which we have shattered the belief in the reliability of the numbers handed down in the sources will assist us in procuring better numbers. It is the comparison of the numbers one with another. All numbers control each other mutually; not only the numbers from the same time and of the same event, but also those from the most remote periods of time.

It is a recognized fact that Moltke displayed great cleverness and genius in 1870, when he directed the monstrous mass of his troops from one centre, drew them up abreast, and made them act together in battle. His work was lightened for him by the fact that the drawing up of the troops was executed in a very broad front and not less than nine railway lines could be used for this deploy. Numerous macadamized roads further lightened the marches of the troops, and particularly of the wagons. The telegraph transmitted all commands with the swiftness of lightning; an apparatus for orders, developed most delicately during many decades, the organization of assistants, the general staff, bore and shared the work of the commander. The strength of the army was about 400,000 men in the first line, followed by 100,000 in a second line. To direct such a mass unitedly is, even with railways, roads, telegraphs, and a general staff, an exceedingly difficult task, and that it is so is also shown by the previously mentioned example that on the day of Vionville, of ten army corps ready at hand, not much more than two were really engaged in

action; some of the others were too far in the rear, the rest had been led in a direction where there was no enemy. So there was doubtless a mistake, but one of those mistakes which are unavoidable in war, which therefore are only stated by the critic, but do not deserve to be blamed. They serve us now as a proof that, even under the command of a man recognized by friend and foe as peerless, mistakes in the conduct of such numbers may always happen, especially because the commander-in-chief, in the impossibility of leading such masses directly, has to leave very much to the independent decision of the subordinate generals.

Well, now, if it was so difficult to move 400,000 men with such aid, by such a man, then all those reports which we have received of similar armies in olden times of the Assyrians, Persians, Gauls, Huns or Germans, are struck out of history. How could Attila have led 700,000 men from Germany over the Rhine into France to the Plain of Châlons, if Moltke moved 500,000 with such difficulty over the same road? The one number acts as a check on the other. The

view of the army movements of 1870 gives us a common standard of measure for the movements of the armies in far remote times.

The armies, however, demand not only to be moved, but also to be provided with food. Even for this side of campaigning the later war-history gives us measures of which we can make use for olden times. When Bazaine with his whole army was besieged in Metz, it was necessary to maintain the 200,000 men of the besieging army for ten weeks on the same spot. Metz lies only about twenty-five English miles distant from the German boundary of that time. Behind lay a railway which connected directly with Germany; in spite of this, the provisioning of those 200,000 men with their army service corps proved to be an exceedingly difficult piece of work. The commissariat officer Engelhard, to whom it was entrusted, has left behind notes concerning it, from which one can most clearly understand with what internal difficulties such a seemingly simple business had to struggle; nothing seems more prosaic than the buying and delivering of bread, rusks, bacon, meat, erbswurst, hay, or

whatever it might be, but the struggle with the object is so entangled that one reads the tale straightway with sustained attention, and these merely business-like transactions become most amusing incidents. There is, indeed, a railway, but the number of the approaching cars is so great that they cover the tracks and block the railway. The provisions arrive, but men are lacking to unload them, until a large company of bearers has been sent for from a manufacturing town. The provisions are unloaded, but now covered space is lacking; they lie in the rain and are spoiled; of the enormous quantity of bread, which back in Berlin was baked, almost nothing of it reached the troops, because it was mouldy before they could get it. The troops had originally no vehicles with which to fetch their provisions from the last station, Remilly, and when they had the wagons, the roads were soon so ruined by traffic that in rainy weather they remained stuck in the mud. What finally came to their aid? It was discovered that on the railway through Nancy, which had been assigned to the third army, then before Paris, the same obstruction prevailed, and far ahead cars with provisions were standing on the tracks which should have been dispatched to them, but had made no progress. These cars the commissariat officer Engelhard seized, and thus fed the army before Metz. But when the railway to Paris was again open, the third army demanded their pilfered provisions, which request naturally, as Engelhard dryly remarks, "could only be answered by giving receipts for what he had taken." 1

In mathematics, the shortest way to come from one point to another is the straight line; not so in history, if you want to come from the assertion of a contemporary to the real truth. We had to work our way through by roundabout paths, to discuss the question of the relative force of the Greeks and Persians. Herodotus tells us quite exactly that 5,100,000 men was the strength of the army of Xerxes, including all the servants that followed the warriors. Seldom in these 2500 years has this number been doubted, and even up to date it has found defenders,

¹ Cf. Geist und Masse in der Geschichte. Preuss, Jahrb. 147, p. 193 (1912).

although, if it were true, one may calculate that, marching through paths, often very narrow, between the mountains, the last men could only have left Susa, beyond the Tigris, when the first arrived before Thermopylæ. But, after rejecting the enormous ciphers of tradition, the question is not yet settled. We must go still further and ask, if the Persians had not an enormous majority, had they one at all? Most historians up to date think that there can be no doubt. They will not believe that the Greeks should have told of such an enormous superiority of the Persians, if at least they had not been more numerous than they themselves. And why not? The Greeks had a very small country, not even fertile. Xerxes commanded a world empire. Why should he not have led an army at least two or three times as large as the Greeks could bring together? Quite right, but now there comes the Burgundian analogy. Swiss, too, tell us of the manifold superiority with which Duke Charles fought their own armies; and the Duke had countries with a much larger population than the Swiss can-Notwithstanding, the documents leave

no doubt that the hundred thousands of Charles the Bold are a fable, and that not the Burgundians, but the Swiss had a considerable superiority in their battles. Why shall the Greeks have more credibility than the Swiss? Are we to believe them only because we have no Persian author who contradicts their stories?

These arguments, at least, seem to me strong enough to permit scepticism about tradition, but we can say more. We may not trust the tales of Herodotus, but, as we have already seen, we are entitled to trust him about the places where the battles were fought and about the marches that the Persian army made between Thermopylæ and Athens. Now, the Plain of Marathon is so small that some fifty years ago a Prussian staff officer, who visited it, wrote with some astonishment that a Prussian brigade would scarcely have room enough there for its exercises.

So also in the campaign of Xerxes and Mardonius we find marches that evidently an army of more than twenty, or at most twenty-five thousand men, could not have made. Xerxes had taken Athens and rested there perhaps a fortnight, until the Battle of Salamis, but his troops did not even advance to Megara, a town only twenty English miles from Athens, and one that would have been of the greatest importance for the Persians to take. There can be no other ground for this omission than that the Persian army was too weak to hold both points, Athens and Megara, together.

I will not go any more into detail, but draw at once my conclusion that, in fact, the Greeks were stronger in numbers than the Persians, and meet the objections: how then was this Persian invasion so great a danger for Greek freedom, and why did the King of Kings not bring a greater army with him from his empire?

The answer is the same as with the Swiss. The glory of the Swiss is not that they smote the enemy at great odds, but that their enemy had an army of knights and professional warriors, while the Swiss were a levy of citizens and peasants. The great mass of the subjects of Charles the Bold did not go to war, but were peace-loving inhabitants of

town and country. Just so the great mass of the subjects of King Xerxes were men who had nothing to do with war, but were overcome two generations before by the Persian warriors.

The foundation of the Persian Empire may be compared with the extension of the Mohammedan Caliphate 1200 years later; except that the King of the Persians is not a prophet nor the lieutenant of the prophet, but only the secular head of the people and chief of the warriors, although the Persians also, like the Arabs, professed a religion revealed to them by the prophet Zoroaster. The Persian warriors were as brave as any people not yet touched by civilization, and had not grown effeminate by riches and luxury. They were so celebrated for their bravery that Herodotus himself tells us that before the engagements of Marathon, etc., the Greeks did not dare to look the Persians in the face. Could the Greeks have smitten the Persians, if these at the same time had been more numerous and braver than themselves? Here you see very clearly how the legend works. To tell us that the common people won the victory over a gallant chivalry does not suit the popular imagination. To satisfy that popular taste and talk there must be a victory of a minority over a majority. The people are not logical, a contradiction does not trouble them; so we find in the tale of Herodotus that the Persians were the most gallant warriors of the world, and at the same time that their cowardly masses could only be driven into the battle by flogging.

The question of the numbers once settled, the battles of Marathon and Plataeæ are easily understood. The Persians, as we have seen, were bowmen and horsemen, the Greeks one long line, a phalanx of ironclad footmen with pikes. The great danger for the Greeks was that, while they were marching forward to attack the Persian bowmen, the cavalry might come into their flanks and disturb their order, so that they would not be able to continue their attack against the bowmen, and must fall by and by under their arrows. How could this difficulty be overcome? The battle-field of Marathon will tell us. In the Plain of Marathon there is a place

just fit for an Athenian army, protected on both flanks by hills and rocks. Miltiades placed his men and awaited the attack of the Persians. If the Athenians had gone out into the plain the Persian riders would have seized them on the flanks. they had remained stationary, they would have fallen under the Persian arrows. The decision of the battle depended upon the commanding officer. He kept his men on the spot and precipitated them at the moment when the Persian bowmen were near enough to attack them on the run. To use a modern expression, the task was to change from the defensive to the offensive at the right moment. The greatness of the Athenian people is that at this moment they had a man who was able to fulfil this task, that they had a belief in him, that they made him their leader, and that they obeyed his command. How difficult it was to bring the mass of a democratic people, where every man believed himself to be as clever as his general, to perform such an artificial manœuvre is strikingly shown by an incident in the Battle of Plataeæ, where Pausanius had proposed to

imitate the manœuvre of Marathon. It was easier here, because it was only imitated, but it was more difficult, because the Persians now knew the danger also, and manœuvred to avoid it. For many days each of the armies tried to entice the other into a battle on a spot of his own choice. To calm the impatience of their men, both generals turned to the aid of a prophet, who told the people that he who should cross the river Asopus would lose the battle. At last the Persians believed they had found a favourable moment, and proceeded to attack the Spartans. But they were cautious enough not to come to that place in which Pausanius wanted to engage with them. All the future of Greek and human freedom rested upon the question whether Pausanius could keep his men from rushing too soon upon the Persians. What did he do? He had beside him a priest, who sacrificed one animal after another and pronounced again and again that the signs were not yet propitious. At last, Herodotus tells us, King Pausanius raised his hands to the goddess in the next temple, so that everybody could see, and asked her help. At once

the intelligent priest found that the auspices had become favourable; the King gave the signal of attack, and the Spartans advanced and won the battle.

If at the first sight the glory of the Greek victories might seem diminished by taking away the superiority of Xerxes' army, we now see that on the contrary the performance is much greater. The Greeks had not to fight enormous hordes of Asiatic people, divested of any soldierly or even manly virtue, driven into the battle by whips, but on the contrary an army of the very best soldiery, which they could overcome only by the union of the brave fighting of the mass of the people with the strategical guidance of generals whose great capacity has not been surpassed in the world's history.

The difference between the conception which I have now presented to you and the traditional one may be expressed by the words: "It was not the quantity but the quality of its enemies that endangered the freedom of Greece." But quality is a category that does not suit popular feeling, and therefore tradition substituted quantity.

Perhaps still more evidently than in the land army it is in the naval engagements that numbers were not on the side of the Persians, but of the Greeks. The Persian fleet consisted of the ships of the Phœnicians and the Ionians, first-class sailors both of them. The Athenian fleet counted. according to the tale of Herodotus, at least one hundred and twenty-seven triremes. One hundred and twenty-seven triremes need a crew of 25,000 men; that is to say, the whole citizenship of Attica. By far the majority of the inhabitants of Attica were peasants, gardeners, charcoal-burners, potters, and other artisans who had nothing to do with the sea. Only two years before the Battle of Salamis the Athenians had built their great fleet; some years before they had so few warships that they borrowed some from the Corinthians for a certain purpose. So it is quite clear that the Persian fleet in quality and dexterity must have been much better than that of the Greeks. If, notwithstanding, in the Battle of Artemisium in the free water north of the isle of Euboea, the Greeks held their own, and though they had not the upper

hand, at least they were not vanquished, this event cannot be explained otherwise than by the fact that they had a good superiority in number. How, then, did they win the Battle of Salamis? I have no doubt that all the different attempts to analyse this battle are wrong, and that quite another solution is to be found. One of my students will, I hope, in a few months, publish a dissertation that will solve the riddle.

The consequence of the reversal of numbers in the Greek-Persian War is very far-reaching. How often have we heard of the million army of Xerxes and the small band with which Alexander the Great subdued the whole Orient. Alexander set out with an army of 32,000 men on foot, 5100 horsemen. That may have been about double the number which Xerxes had. It was not a small band, but by far the greatest army that up to that time the world had ever seen.

Let us now turn to the Romans. I should like to divide the conquest of the world by the city of Rome into four different chapters: the subduing of the Latin tribe,

the subduing of Italy, the defeat of the Carthaginians, and the conquest of Gaul by Cæsar. Were the Romans braver than all these other peoples and races? Hardly. Was the Roman population more numerous? No, assuredly not. Wherein lay the preeminence of the Roman armies in all these centuries? It was in the Roman discipline. The Spartans, too, were well disciplined, but their numerical and economic strength was far too small to build up an empire. Rome united the economic strength of a great town on a navigable river near the sea (the site of Rome on the Tiber may be compared with the site of London as a natural emporium) with a powerful constitution. The constitution of Rome is marked by the broad basis of a patriotic democracy led by magistrates exercising rigid authority, an authority that was derived from the gods, not from the people, and was handed down from the abdicating consul to the new one in a similar manner as a Christian bishop derives his authority from the blessing of a predecessor. The administration of the holy augurium on any solemn or important occasion made

apparent to every man the holiness of the office and the duty to obey.

The economic strength of the town gave to Rome the leadership of the Latin tribe, whose peasantry and country towns were obliged to follow the capital. Then the well-disciplined army of Roman and Latin citizens and peasants overcame the other nations of the peninsula, protecting them at once against the barbarian Gauls in the north. The compulsory service of all free men gave armies as large as they were needed; heavy taxes gave the money to assure to the soldiers their regular pay; the staves of the captains, the centuriones, secured the order in rank and file, and the hatchet of lictors following the consul warranted the obedience in the whole military organism. The consul Manlius did not spare the life of his own son, who had been guilty of an act of disobedience.

What with such an army could be done and what with it could not be done was to be seen in the second Punic War against Hannibal. We are in the happy situation of possessing a very explicit account of the most characteristic battle of this war, the Battle of Cannæ, in the books of Polybius, whose chief features, as some indications seem to me to show, can be reduced to a tale or even a dictation by Hannibal himself. Let us try to picture this battle, according to the analysis of it given in my history of the art of war, and defended of late in the *Historische Zeitschrift*, Vol. CIX (1912).

The Romans, when they had suffered two great defeats from Hannibal at the Trebia and Lake Trasimenus, caught under the guidance of the Dictator Fabius the idea not to fight the Carthaginians any more in pitched battles, but to wear out their strength through clever manœuvres. But soon enough this system appeared to public opinion as one of cowardice. Hannibal ravaged one province, one territory, after the other, and the Roman armies had to look on without helping; so it was resolved to bring together an army so strong that by its mass it must weigh down the force of Hannibal. In the Plain of Apulia, on the north bank of the river Aufidus, they took up their position for battle with about 55,000 heavy-armed foot-

men against the 32,000 of Hannibal; but Hannibal had a remarkable superiority in cavalry, 10,000 against 6000. Both armies had the infantry in the centre and the cavalry With the first rush the on the wings. Carthaginian cavalry smote the Roman, so much the more as Hannibal had assembled all his heavy cavalry on one wing. As soon as this had vanguished there, it sent help to the other wing by going round the Roman infantry in the rear, and thus drove away the Roman horsemen here too Meanwhile the two lines of infantry had closed upon each other. Polybius tells us that Hannibal had arranged his infantry in the form of a halfmoon; of course this cannot be understood, as Polybius himself understood it, as a round line, because a round line cannot be formed by marching, and troops standing in a round line cannot be moved. What in Polybius' source was called a half-moon is what we in German and English call the form of a horseshoe. By this expression we do not mean to say that the points are rounded; we use it, for instance, when the tables of a dinner-party are arranged in this form.

Therefore what is meant by the half-moon is that Hannibal at both ends of his infantry placed a column, so that these two columns, together with the front line, formed the horseshoe Each of these columns numbered 6000 men. On the front, therefore, were not more than 20,000, who now had to stand against the 55,000 Romans, who in one solid mass rolled upon them. It was impossible that they could hold out very long against such superiority; so much the more as in the front line stood not even the oldest and best troops of the Carthaginian army, the Africans, but only the Spaniards and Gauls, whom Hannibal had taken into his service. But Hannibal knew that they needed to withstand the enemy only for a short time; for now his cavalry had finished with its adversary and attacked the Roman legions from the rear. For a modern well-exercised army such an attack of mere cavalry, even in the rear, would not be so very dangerous, and not only because these horsemen would be driven back by the bullets of the fire-arms; for at all times a good infantry that keeps its order had not to fear being overrun by

cavalry, even if it defended itself only with spears. If the Romans had had a reserve, or if they had put their infantry in two or three lines capable of manœuvring independently behind each other, the reserve or the last line would have turned and withstood the hostile cavalry, while the bulk of the legions smote the Carthaginian infantry, so much their inferior. The manœuvre to be made seems all the easier for the Romans, as their legions, in any case, were divided in three parts, the hastati, the principes and the triarii, who stood behind each other. Why did the consuls not command that all the triarii should halt and turn, while the hastati and principes march on and smite the enemy? Simple as this command may seem, the execution of it is too difficult for an army of mere citizens; such a manœuvre cannot be improvised, but must have been practised on the drill ground in peace.

All the older scholars in Roman history were of opinion that from the oldest times the tactics of the Romans had qualified them to manœuvre with the very smallest tactical units, the *manipuli*. The course of

the Battle of Cannæ shows us that they had not, and indeed it is beyond all possibility of human ingenuity. Very likely the consuls, who, as we know, were not experienced generals, but the mayors for the year, did not even give the order to divide the army; and if one or the other of the high officers should have given such an order, it would have been in vain. The effect of the attack of the Carthaginian cavalry from the rear was not that one part of the Romans fought against them while the other part marched on, but that the whole army stopped their advance. At this moment all the advantage of the superiority of the Roman infantry in numbers was lost. All the hope of the Romans had been to press down the enemy with the enormous weight of their solid mass. We are expressly informed that this superiority had not been employed to extend the front in length, but to form each company deeper than usual. Very likely not less than seventy-five men stood one behind the other; no more than those of the first two or three ranks could employ their weapons; all the enormous mass behind them had no other

aim than to push forward and in this manner to press away the enemy. Now this pressing, that is to say the force of the Roman army, was taken off and stopped, and in the same moment Hannibal gave the order to his two columns of Africans to advance, to wheel, and to attack the Romans on the two From all sides the Romans were now enclosed. From all sides the light troops of the Carthaginians mingled with the infantry and cavalry and cast, hurled, and shot stones, arrows, and lances into the huge mass. The Romans were hardly in a position to defend themselves, and in a slaughter of many hours almost the whole army was annihilated.

Clausewitz once uttered the sentence that the weaker party in a battle ought not to turn both flanks of the enemy at once; for if it does so, it falls into the danger that its centre will become too weak and may be broken by the enemy. Hannibal did what is here forbidden, and achieved the work of enclosing an army much superior in number from all sides to destroy it. It is the most perfect

victory that ever was fought in the world's history. It is more than Sedan, where also a whole army was annihilated, but the victorious Germans at least had a great superiority in number.

The whole decision of this battle depended upon the one point that the Carthaginian cavalry stopped the Roman legions before they could press down or drive away the hostile infantry. Why then did Hannibal run the risk of weakening his infantry in the centre? His victory would have been much surer if, instead of giving to his Africans the position of the two columns and of forming the half-moon, he had strengthened his front line with these, his most reliable troops. But if he had done so he would indeed have secured his victory, but he would not have annihilated the Romans: a great many of them might have escaped if the Africans had not enclosed them on the two flanks. Therefore Hannibal formed his two columns on the wings. Here they stood ready for both purposes. If the danger for the centre would have appeared too great, he might from there have made them advance and strengthen the front line. If not, he could order them to make their turning movement, and to accomplish the surrounding of the Romans.

The Africans were the best troops of the Carthaginian army. Why not give to these the position most endangered? If the Africans were the troops Hannibal could most rely upon, he also had every reason to spare their lives. It was to be expected that the troops in the front line would have the, greatest losses; the war was not at an end with this battle. So Hannibal felt himself safe enough, and was cold-blooded enough, to entrust his front line to his newly-won allies, the Gauls and Spaniards, and he knew of a means to fortify their line. He himself, the commander-in-chief, with his young brother Mago at his side, took his place among them. How easily these barbarians might have become suspicious when they saw that the Africans stood aside in a very unusual manner! But seeing Hannibal himself in their own midst, and hearing his voice, they

felt sure that all was in order, and, certain of victory, they held their ground, these 20,000 men against 55,000, slowly yielding till the cavalry had accomplished their manœuvre and pulled back the Roman legions. No tale of this battle should pass over this position of Hannibal in the centre of the battle, where, with only the moral weight of his person, he balanced the superiority of the Romans in number.

The Roman army of citizens and peasants, well disciplined as it was, could not withstand the military genius of Hannibal, but Hannibal, in spite of his victories in the open field, was not strong enough with his barbarian soldiers to besiege and to take all the towns that belonged to the Roman federation, much less the town of Rome herself.

So the Romans, turning back to the strategy of Fabius Cunctator, protracted the war. But with their army of citizens they never could have got rid of such an adversary, still less could they have been able to overcome him. But the war itself changed the character of their army. The army of citizens with two

mayors at its head, changing every year, was transformed into an army of professional soldiers with professional officers and a commander-in-chief at its head. Not for one year but until the war should be at an end: "Donec debellatum foret," said the senatus consultum which gave the command to Scipio. Formally the old citizen army remained for a century; but in fact it became more and more a mercenary force, till Marius achieved this development.

The military technique by which this army was able to overcome the Punic army was the manœuvring with small battalions, the *cohortes*, and the forming of two or three independent battle lines one behind the other, which they had not been able to accomplish at Cannæ.

Scipio was the general who had formed this new army, developed the new art and employed it in the Battle of Zama, more correctly called Narragara.

The Roman army of the second and first century before Christ had a certain likeness to the English army of the eighteenth cen-

tury. The generals and staff-officers came from the noble families of Rome; the bulk of the soldiers were Romans, enrolled voluntarily, or sometimes pressed; some troops of foreigners, especially horsemen and bowmen, were attached to the Roman national army of the legions. The chief difference between this Roman army and the English of the eighteenth century might be that in the latter the company officers were gentlemen, while in the legions the centuriones, i. e. the captains, were socially sergeants. That this was the character of the Roman army was well known long ago; but what I want to accentuate is that the change had already taken place a century earlier, and that the definite victory that the Romans had over Hannibal was not due to an army of citizens, but to an army of professionals.

It was the authority of the magistrates derived from the gods, that gave to the Romans that discipline by which, on the day of Zama-Narragara, they overcame Hannibal. This same authority was employed in giving to the Roman armies the superiority in num-

bers over their enemies. This point will be of the highest importance as we now enter into the struggles which the Romans had with the Gauls and Germans. With how many men old Brennus defeated the Romans at the Allia and destroyed the town we have no tradition; but all Roman sources agree in assertion that first Marius defeated hundreds of thousands of Teutons and Cimbri at Aquæ Sextiæ and Vercellæ, and fifty years later Cæsar defeated just as many Gauls and Germans. Now there is one chapter in the fifth book of the Commentaries of Cæsar, in the struggle with Ambiorix, where he says that one and a half of his legions were annihilated by the Gauls, though they were equal in number. How was it possible that Romans in this engagement were overcome by equal numbers, if on all other spots the Romans again and again had the upper hand over great odds, even tenfold, of the same enemies? Ever since the scholars have observed that here is a contradiction. But the belief in the authority of Cæsar was so great that they felt obliged to help in amending the

text. They eradicated the ominous assertion that Romans and Gauls in the Ambiorix campaign had been equal. There can be no doubt that the solution of the contradiction is to be found in exactly the opposite way. All those numbers about the hundred thousands of Germans and Gauls, which, according to the Roman sources, have been vanquished by their heroes, are just as worthless as the tales of the Greeks about the army of Xerxes; and Cæsar has for his numbers no more claim for authority than Frederick or Napoleon. Cæsar himself tells us, that the great mass of the Celtic people had long since lost their warlike character, and were under the dominion of a knighthood. Knights are always brave, as Cæsar tells us of the Gauls, but they cannot possibly be very numerous. It is otherwise, but with the same result, with the Germans. The Romans themselves tell us that the Germans were so backward in civilization, that they had no towns, that their land was poorly cultivated, and that the greatest part of their country was covered with forests and swamps. It is clear that in such a country only a very thin population could live. From later sources, especially from Tacitus and Strabo, we know the names of all the little German tribes between the Rhine and the Elbe. Each of these tribes, Cherusci, Chatti, Bructeri, etc., had a territory of not more than 25,000 English square miles. So they could not possibly count more than about twenty-five, or at most thirty or forty thousand souls, or four to eight thousand warriors. We shall find a confirmation of this estimate by another observation.

Many of us may have wandered along the Brenner road between the mountains of Tyrol, and to one or the other of us it may have occurred, perhaps, how here 2000 years ago a branch of our common forefathers, the people of the Cimbri, passed by on their way from the raw North into the blessed fields of Italy. The Romans state their strength as at least 200,000 warriors; with women, old people, children and servants it must have been at least 800,000; 800,000 souls who dragged with them their entire household goods on their carts and drove

their cattle by their side, all following each other along the narrow rough path over the mountains, where the first few hundreds had already consumed all that was to be obtained near the road of grass and provisions for man and beast. For a distance of 150 miles the pass winds first along the Sill, then the Eisack and Etsch, through the gorges and over the slopes. We now know what it is, to move hundreds of thousands, even in easy hill-country, and to provide for them, even with the aid of railways and victualling columns. We reject not only the number handed down by the Romans, but it is clear to us, that a mass of 40,000 souls, of which 10,000 are warriors, who thus move along this road, reach the limit of credibility, if it has not already overstepped it. through their number, but only through their wild, barbaric bravery did the Cimbri so alarm the Romans.

Barbarians of this kind are the most terrible soldiers that exist, and even the best disciplined Roman legions were not able to overcome them, unless by remarkable

superiority in numbers. Well, then, why did the Romans not profit by their number to take possession of Germany and to revenge the great defeat of Varus in the Teutoburg Forest? The task was perhaps not impossible, but of enormous difficulty. "With a small army I can accomplish nothing, and with a great army I cannot live," are words that perhaps are not seldom uttered by generals in the World's War History. Germany had neither towns, where one could find greater supplies, nor roads, along which they could be transported; by reason of the same circumstances which as we have seen caused these territories to be but thinly populated. The country which cannot supply enough food for its own inhabitants, cannot nourish a hostile army.

For many years the Romans made great exertions to overcome this difficulty. They dug canals, they built great fleets to carry provisions from the sea to their armies. From the North Sea their fleets came up the Ems, the Weser and the Elbe. They built roads, they erected castles as fortified store-

houses, like the celebrated Castle of Aliso. All these things could not be rightly understood as long as scholars believed in the great masses of the German people.

Even the words of our sources were not correctly translated. Where you find the word "limites," the scholars understood it as the fortification of the border; in truth here are meant the roads, which the Romans were building through the forests, that their victualling columns might traverse. Just so King Edward I, not only with his soldiers, but with his woodcutters, overcame the Welsh.¹ The Romans at last desisted from

The importance of clearing roads through the woods is illustrated anew by some edicts of Edward I, published in the Calendar of various Chancery Rolls, A.D. 1277-1326 (1912), p. 232, to which Dr. Round directed my attention. July 15, 1282: The King orders the Sheriff of Gloucester, immediately upon sight of these letters, laying aside all other matters, to cause provision to be made of 100 of the most powerful woodcutters of his bailiwick, so that each of them shall have a good, great and strong axe or hatchet (hachiam vel securim) to fell great and little trees. The sheriff shall cause each of them to have their wages beforehand, to wit, 3d. a day, from the day of

the struggle. The task seemed to be too hard and the country to be occupied too poor, the booty too worthless.

Perhaps the Romans, notwithstanding, driven by their pride and by the wish to revenge the defeat of the Teutoburg Forest, would have staked everything to overthrow the Germans, if in their own affairs there had not been an obstacle. The decisive moment occurred when at the end of the year A.D. 16 the Emperor Tiberius recalled his nephew Germanicus from the scene of the German War. In three campaigns Germanicus had severely worsted the Germans, and many of

their departure for eight days following. The like the Sheriff of Hereford to choose 100 woodcutters, the Sheriff of Salop and Stafford 200, the Keeper of the Forest of Dean 100, the Sheriff of Leicester and Warwick 200, of Nottingham and Derby 200, Lancaster 200. June 1, Dec. 11, 1282; March 21, 1283; July 23, 1287, similar orders.

In an order of June 10, 1282, is related as the reason for woodcutting that it is expedient for the keeping of the King's peace and for the security of those passing, the thick coverts of the woods (p. 185); likewise pp. 254, 293, 318. Each pass shall be a bowshot in breadth, p. 274.

the chieftains, even of the Cherusci, had gone over to the side of the Romans.

Public opinion in Rome accused the Emperor of having recalled Germanicus because he grudged him the glory of the victory; but very likely the reason lay deeper. Tiberius was only the adopted son of his predecessor, Augustus, and had no natural right to the throne. Germanicus was a blood relation of Augustus, the grandson of his sister; and his wife Agrippina was the eldest granddaughter of Augustus himself. So this couple and their children had surely in the eyes of the Romans more right to the throne than Tiberius. If Tiberius had left Germanicus in command of the army in Germany, these eight legions would have coalesced with their general, just as seventy years before the legions who had made the conquest of Gaul, coalesced with their commander-in-chief, Cæsar, and the end of it was that Cæsar with his legions overthrew the republic and made himself the ruler of the empire. Must Tiberius not have feared something like that, if he allowed this nephew, who had even a certain

claim to the throne, to attach the legions to himself in a companionship of many years of common successes and common glory? Not envy, but concern, must have directed the resolution of the Emperor. If we take together these two sides of the situation: the German one, that they made the task very hard, and not to be achieved unless by a war of many years; and the Roman side, that the Emperor had perhaps to fear the definite victory even more than a defeat, we shall understand all the better this fact of such illimitable consequences that one of the great nations of Europe was left outside the borders of the Roman Empire and retained its freedom together with its barbarity.

The Romans were told that Augustus had already said, the empire was large enough and ought not to increase any more. It seemed sufficient not to fight the barbarians offensively, but only to protect the empire against their invasions. The whole of the Roman army was placed on the borders, from the Tigris and the mountain of Atlas, to the Rhine and the Danube. In the interior of

the empire, except the town of Rome, there were scarcely any troops, neither legions nor auxiliaries.

This system lasted for about three centuries; the Roman citizens and subjects paid their taxes, and with them the Emperor kept the legions and auxiliaries on the borders, and gave to the civilized world the security to attend to its peaceful work. It is the longest period of peace the world ever saw. The contemporaries were as dissatisfied with their state and standard as possible; all the authors of the time agree in condemning it. In their eyes, and in the eyes of many historians of our day, this period was one of despotism at the head and moral depravity among the masses. It is true to a certain extent, and the strongest empirical proof, that peace is not the highest good of humanity. But let us have our eyes open to some other aspects of this period. Wealth and population were growing under the protection of peace. It is absolutely false that the population under the Emperors had decreased. It was only among the noble families

of Rome and in some single territories that families died out and population diminished. Everywhere were built great towns, with magnificent temples, amphitheatres and public baths. The whole empire was traversed by roads, so well built that even to our day some of them were in use. On June 16, 1815, the fourth Prussian corps made the march that two days later brought it to the battle-field of Waterloo along a Roman road. Roman and Greek literature produce names not less in the memory of man than those of any former period, Seneca, Tacitus, Plutarch. In the space of two or three hundred years all those barbarian nations in the West adopted the Latin language, just as the nations of the East the Greek. They gave up being Celts or Iberians, and became sons of that classic education, which the Romans had first taken from the Greeks.

Above all, this period that is accused of moral depravity saw the spread of Christianity through all the provinces and all classes of the people. At the side of the great authors of the heathen world stand the Fathers of the Church. Can it be true that a time that produced powers and persons of such greatness was finally, as we are so often told, ruined by its moral deficiency? Shall we believe that the same people, whose children showed the courage of the martyrs had no longer men with the courage of soldiers?

The answer is that courage does not suffice to make soldiers. From the beginning we have heard, that it was not only the Roman courage, but above all the Roman discipline that gave their town the supremacy over its enemies. Legions are disciplined troops; the sons of Roman peasants and artisans, who enlisted as soldiers, could not have withstood the ferocity of the German barbarians without the practice of their discipline and the tactics based upon the same discipline. Now these disciplined legions ceased to exist in the middle of the third century. Mommsen and other scholars believed that the Roman legions had existed even in greater number than before until the beginning of

the fifth century. If this had been the case, the fact of the overcoming of the Roman provinces by German tribes would be absolutely inexplicable. But in truth, as I believe I have proved, the real Roman legions were dissolved under the dynasty of the Severians, and we have to deal with a period of Roman history with foreign soldiers, that is, barbarians. So, if Hannibal had got the better of the Romans, he would have established a Carthaginian Empire with barbarian soldiers. Now the Romans, who had established their empire with their own citizens as soldiers, at last resorted also to the expedient of defending themselves by means of barbarians, whom they hired. Cæsar had already had his German cavalry, with whose help he overcame Vercingetorix as well as Pompey; the Emperor Augustus had a German life-guard; and barbarian auxiliaries were also attached to the legions. But now the legions ceased to exist, and the security of the empire rested exclusively on the strong arms and ferocious bravery of the Germans. It is impossible that the Emperors and the Romans on the

whole should not have seen the danger into which the realm fell by this development. All the more the Emperors must have seen it, because there were in the critical period, in the second half of the third century, a number of valiant warriors and clever generals among them, and the danger was even greater for their persons than for the realm; for the lawlessness and lack of obedience of these barbarians turned very easily into mutiny, and most of these Emperors were, after a few years of government, murdered by their own soldiers. But things went on in the same way. At last the empire hired not only single mercenaries and chieftains with their followers, but whole clans and whole tribes with the Kings at their head. For as to the Germans, any man, or any boy from his fifteenth year, was a warrior, and a small tribe, such as 25,000 souls, was as much as a whole Roman legion formerly.

So these tribes first settled on the border of the realm to protect it, and at last came with wives and children, cattle and household

into the interior of the provinces. And then it was that these armies, or the chiefs of these armies, proclaimed themselves masters of the territory. This is what we call the migration of the nations. It was not that the Roman legions were at last overcome by the German hordes, but the Roman legions had dwindled away and the German hordes were called and brought by the Romans themselves, first to protect the empire against other hordes, then to decide the civil wars of different Emperors among themselves. At last the protectors felt that they were the masters, and put themselves in the place of the ruling Roma. The Romans tell us again of the hundreds and hundreds of thousands of these barbarians who now occupied Italy, Gaul, Spain and Africa, the West Goths, Ostrogoths, Vandals, Burgundians, Alemanni and the Franks. We now know better. If one source gives to the Burgundian 80,000 men and another 3000, we now know that this last number will be much nearer to the truth than the first; all the more so as some years before the Burgundians had suffered that celebrated defeat by the Huns

where King Gunther was killed with so many of his people, whose splendour the memory of man has reflected in the *Nibelungenlied*. Of the West Goths, a learned author tells us, that they had been as numerous as the army of Xerxes that was once counted at Doriscus. Let us accept this comparison, but in quite another sense. The course of the Battle of Adrianople shows that certainly they had not more than 15,000 warriors, which indeed may have been the size of Xerxes' army.

So small were the armies which gave the great turn to the world's history, which put an end to the culture of the ancients, and destroyed what hundreds of years of peace had built round the Mediterranean Sea. No words suffice to picture the horrors of this crisis. For their pleasure, laughingly, as the chronicler tells us, the Alemanni burnt the rich towns of Gaul; the Goths in Thrace cut off the right hand of every peasant who came into their power. The Lombards in Italy extirpated the whole aristocracy, and took the castles, houses and possessions for their own chieftains.

All this was the result of the Romans in the third century giving up their legions, and again we ask, why did they? I will tell you what I believe to have found out. The power that holds legions together is discipline. The old Roman discipline was derived from the old Roman gods, and in the third century the belief in these gods from several sides was undermined and shaken. The Roman soldiers swore obedience to the Emperor, but who was the Emperor?

From the very beginning it was doubtful who was the rightful successor of a deceased Emperor, his next of kin, his nearest relative, or the best man, i. e. the most distinguished general of the army? When Cæsar died, the question arose as to who should follow him, his grandnephew, and by will and testament adopted son, Octavianus, or the gallant general of cavalry, Mark Antony; and it was fourteen years before the question was settled.

When Augustus died, his nearest heir would have been his daughter's son, Agrippa Posthumus, but as this lad was not esteemed capable of governing the empire, Augustus

adopted Tiberius, his best general, and Agrippa was killed.

With Nero, the great-great-grandchild of Augustus, the family died out, and henceforth there existed no established right of succession at all. Even at the accession of Tiberius there had been a very dangerous mutiny of the legions. After the death of Nero there broke out a great civil war over the question of his successor, and since the murder of the Emperor Commodus, at the end of the second century, such dissensions and civil wars followed each other more and more quickly. Such a state is poison, the death of discipline. How can the men feel themselves bound by their military oaths, if every few years they are ordered by their own superiors to break their oaths and to swear allegiance to another person?

Now at the same time a great economic revolution came over the empire. The ancient world, economically speaking, was built up on a system of payment by money; the legions, as we have heard, were sustained by the taxes and customs of the citizens.

Now we observe that in the third century this system ceases, and the world for more than a thousand years falls into the system of payment in kind.

In the German language we have coined for these two economic systems the words "Geldwirtschaft" and "Naturalwirtschaft," and some English scholars, e.g. Professor Vinogradoff, have translated the latter expression "natural husbandry or natural economy," but the word "natural" in English corresponds more to the word "natürlich" in German, and not so much to our word "natural."

Professor Ashley describes the opposite development at the end of the Middle Ages in this way: "The development of a society in which exchange and the distribution of wealth generally are effected by means of, or expressed in terms of a metallic currency, from one in which land was given for service, service given for land, goods exchanged for goods, without the intervention of a currency at all."

With this system you cannot have a great standing army of mercenaries. The peasant

on the banks of the Garonne may pay some silver pieces, and the soldier on the banks of the Rhine may receive them as his wages. But you cannot bring the corn or the cattle, the fish, the chickens, or butter from the Garonne to the Rhine, to maintain the soldiers with them. The reason why the system of payment in money was given up, was simply that the mines of the ancient world were exhausted. In five or six hundred years at most the mines of precious metal are used up. From the time of Nero, it may be observed that the coins of gold and silver begin to deteriorate; in the first half of the third century the old Roman denarius contained half the silver which it had in the time of Augustus, and at the end of the century it had almost none-nothing but a slight silver coating. The silver and gold which the older generations had produced had been used or had found their way to India and China. Even in our time we should be entirely unable to settle our daily commerce by cash. We have found out the means of credit, notes, cheques, bills of exchange. The ancients had neither this technique, nor could they possibly invent it, especially not the paper money, on account of the insecurity of the Government, as already shown. A ruler who has come into power by murdering his predecessor will have, very likely, no more respect for his notes than he had for his life. So in these times the credit was lacking that is the basis of every substitute for cash.¹

¹ The question, why in the third century the world fell back from the Geldwirtschaft into the Naturalwirtschaft is touched upon twice in Vol. I of the newly-published Cambridge Mediaval History. Professor Reid explains the deterioration of the coinage and its pernicious consequences, but the reason for this deterioration he seems to see only in the faults of the Government, and this would not, as it seems to me, sufficiently explain, why for a millenium the whole world remained in this state. Professor Vinogradoff searches for the last reason in the bestowal of the Roman citizenship upon all provincials. vincial forces began to assert themselves, and in husbandry local needs and the requirements of small people made themselves more and more felt." Here the incident of the coinage has not been taken into consideration.

As the question of payment is so very important

Now unite the facts that the discipline of the Roman legions, as shown already, was severely shattered again and again by the revolutionary changes in the person of the Emperor, and that, at the same time, it became impossible to pay these mercenaries their due wages from lack of money.

It does not seem that the contemporaries understood the last reason for this embarrassment. We hear that citizens were tortured in order to force them to pay their tax; but even torturing could produce no money where there was none. The rulers tried to satisfy the soldiers by increasing their supply of corn, and at last they gave them each a piece of land to cultivate themselves. The result was that the soldier became a peasant, and the disciplined legion ceased to exist.

How then to conduct a war? Mere peasants are no warriors; at all events no warriors who could compete with the barbarians. There was no other help than that

in every constitution of the armed forces, I made a special research regarding it in my *History of the* Art of War, Vol. II.

the Emperors hired barbarians themselves, either to protect the borders against other barbarians, or to preserve the crown against pretenders, who used to come up now from one province and now from another.

The question, at what time this change in the constitution of the Roman army took place, is important not only for secular history, not only for the reasons of the decline and fall of the Roman Empire, but also for the history of the Christian Church. If it is true that the Emperor Constantine won his victory at the Milvian Bridge not with legions, but with barbarians, then we may draw one conclusion, why this man formed an alliance with the Christians. It seems to be quite certain that he was not a believer himself; to the end of his life he built temples as well as churches. That he became a Christian was an act of policy; he had need of the help of the bishops, who were already in all towns the most influential personalities. If he had had still the disciplined legions, his need of other help would not have been so pressing.

former Emperors had persecuted the Christians because in their organization they observed a power that might become dangerous some day to the Emperors themselves. The Church is an independent power that can as well support the power of the State as resist it. The Emperor Constantine must have seen this as well as his predecessors. If, notwithstanding, he in any way helped the Christian Church to organize herself, and to make the bishops more powerful than ever, it is very likely that the lack in his military armament, the unreliability and insubordination of his troops, urged him on. So, you see, there is a connection between the Council of Nicæa and the dissolution of the Roman legions, who so long defended the borders of the empire as well as heathendom. We cannot see how this council, in which the basis of the Christian faith was determined, could have been brought together and could terminate harmoniously without the mighty word of the Emperor.

Let us come to our last chapter, the Military Exploits of the Normans. Even

better than anywhere else we see here that the number of the Normans can never have been very great. They all came from Denmark and Schonen, very small countries, or from Norway, a very large country indeed, but consisting mostly of barren rocks, where only a small population could exist. Sweden does not come into consideration, because its inhabitants bore their standard not to the West, but to the East, and at the same time, while the Normans visited the borders of the North Sea and the ocean, founded the realms of the Warags in Russia. When the Normans came through the Mediterranean to Constantinople, they met their brethren from Scandinavia, who had come down the Dnieper and crossed the Black Sea.

Already, in the time of Charlemagne himself, the Normans began to disturb and ravage the coasts of his empire. Under his successors they were not satisfied with the coasts; they came up the Rhine as far as Cologne and Coblenz, burnt Aix-la-Chapelle, appeared before Trier, dared to besiege Paris, and though a great-grandson of Charle-

magne once more united the whole empire under his hand, he was not able to overcome them, but bought them off with so many pounds of silver and gold. A generation later, the King of the Franks handed over to them by contract the territory at the mouth of the Seine, to which they gave their name. From this new home they went out to subdue England, and founded a new realm in Naples. The Norman Duke of Naples, Robert Guiscard, was mighty enough to fight the German Emperor, Henry IV, and to drive him from Rome, and, having done this, he rose to fight the other Emperor, the ruler of the East, and almost conquered Constantinople. All this must have been done with very small armies; for how could the Normans possibly have obtained great ones? It is just the same as in the Migration of the Nations, where we have also seen, that small bands of real warriors are able to subdue great, rich and populous territories as soon as these are divested of disciplined armies.

In the Middle Ages there existed no disciplined armies at all, but only knights,

augmented by mercenaries. We are in an age where existed an exceedingly small quantity of cash money; and warriors must be endowed with land. So all armies whose numbers we know were very small. One of the greatest battles in the early Middle Ages was, without doubt, the Battle of the Lechfeld, near Augsburg, where Emperor Otto I defeated the Hungarians. The Germans had eight battalions, as the monk Widukind expresses it, eight legions; one of them counted one thousand men, and the monk means to imply that it was a very great one. The force of almost the whole of Germany was united, and it was not more than 6000 to 7000 men. The Emperor Frederick II once boasted of the fact that his army numbered ten thousand men. One of the best books in history of war that I ever read is John E. Morris' The Welsh Wars of Edward I. The numbers that are there given, based on archival researches, regarding the armies of this great war lord, are of similar proportion to those just now noted. The whole knighthood of England is calculated by Morris at 2750 at the most. Even later, the armies of the Hussites, who for so many years terrified all Germany, were only five or ten thousand men. We need not, then, be so amazed at the successes of the Normans.

As to the Battle of Hastings, up to this date there has not been attained harmony among the scholars of this country. When Freeman published his celebrated History of the Norman Conquest, there arose against him J. H. Round, and the controversy then begun seems not yet finished. Public opinion in England was quite on Freeman's side. Whoever has followed my lecture to this point, and knows the controversy, sees already that I am not only on the side of Round, but might go even further, though in the same direction.

As to the numbers, I presume that William might have had, not 60,000, and not even 32,000 as some historians have calculated, but 6000 to 7000; 1 and Harold

¹ Sir James Ramsay believes only in some 5000. Cf. also his essay in the English Historical Review, XVIII, p. 625 (1903).

had not 1,200,000 men, as Bishop Guido of Amiens, the author of the Carmen de bello Hastingensi tells us, nor 400,000 as the Roman de Rou is satisfied to say, but perhaps 4000, and if this number should be false, at all events it cannot be very far from the truth. For William of Malmesbury, although himself a partisan of the Normans, tells us expressly that Harold had only very few soldiers with him (Haroldus paucissimo stipatus milite Hastingas protendit), and other authors assure us, that the English, before the reign of William, had no knights (milites) at all, and that they preferred to take their pleasure sitting at meals and clinking cups rather than go into battle.

Six hundred years before the same Anglo-Saxons had driven out the romanized Celts from their soil; now they themselves had become peaceful citizens and peasants, and were the prey first of the Danes, then of the Norman-Franco knighthood. The bulk of the people were peaceable by custom and by policy. They had no great interest, or

did not believe that they had a great interest, whether their king was called Harold or was called William. So it is quite natural, that in Harold's host there were no peasants. This is shown quite clearly, according to my opinion, in the strategic movements before the battle as well as in the tactics of the 'Anglo-Saxons in the battle itself. Harold had nothing but his huskarls and some noblemen, also accompanied by their huskarls. The participation in the legal power that every Anglo-Saxon had once enjoyed on the other side of the sea, they had lost long ago, and with it their interest in the Government, and if afterwards under the rule of the Norman and Angevin kings they felt often enough the haughtiness and wantonness of the French-speaking lords, it was too late, and there might have remained a doubt, whether under the rule of King Harold, who himself was a half-Dane, and his successors they would have been so much better off.

Hence let us return to the issue of our examination. How did it come about that

the Greek citizens and peasants victoriously repelled the invasion of a foreign knight-hood, and that the Anglo-Saxons were worsted, who displayed, as much before as afterwards, all the highest virtues of warriors?

First, a part of the Greeks, the Spartans, were not at all mere citizens; on the contrary, they were themselves a caste of warriors, and as to the Athenians, Corinthians and the other cantons, all of them were in the habit of continually fighting against each other. So the Greeks on the whole were much more martial than the bulk of the Anglo-Saxon people in the eleventh century, and in those eternal fights against each other the Greeks had developed proper tactics, the tactics of the phalanx, as well as the use of their warships, the triremes. songs of Homer, heard and learned by every boy and every man, nourished the spirit of gallantry and heroism, and enflamed it. Exceedingly small as all these states were, every citizen had part in the Government, and estimated this freedom as the highest privilege, to fight and to die for which the

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poets praised as a holy duty and a glory for eternity.

The glory was not, as so many generations believed, the victory over great superiority in numbers, but it was the same or even more, victory over a gallant knighthood.

Important as the numbers are, and altered as many features of the tradition are, the deepest characteristics have remained the same, and they have remained the same because as we have learned from the preceding remarks how great a task it is for a civilian population to defend itself against gallant knights or ferocious barbarians.

THE END

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